Jan. 9, 1951 P. K. GIRTON 2,537,219

KNOCKDOWN WASH TANK ASSEMBLY

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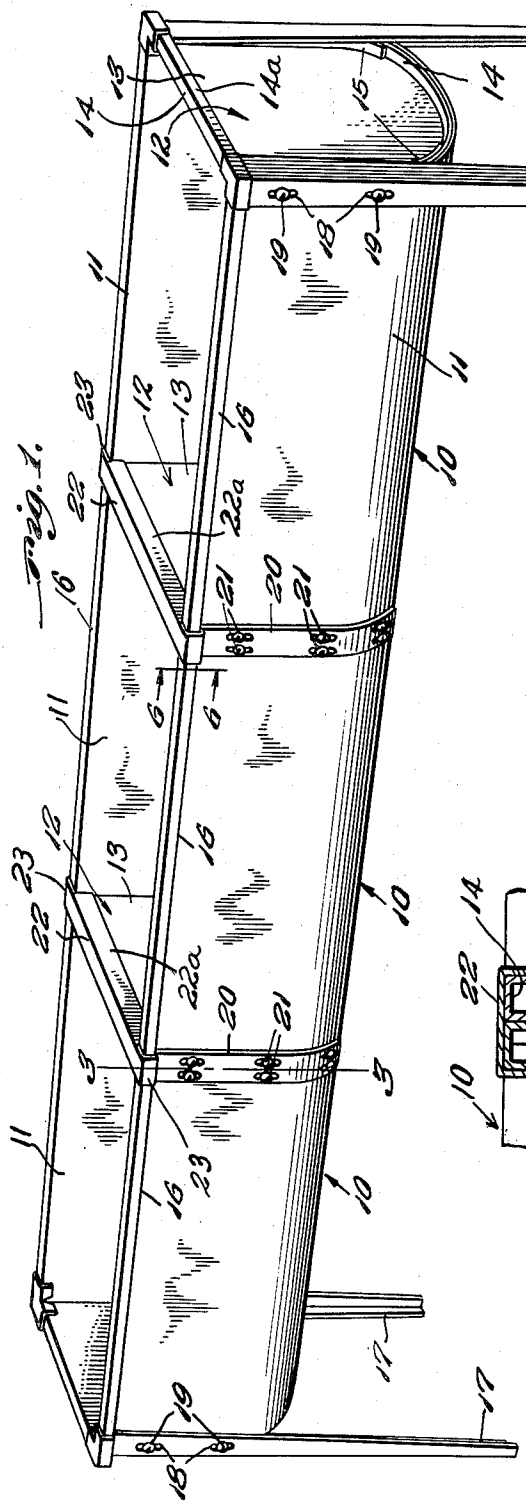


Fig. 1.

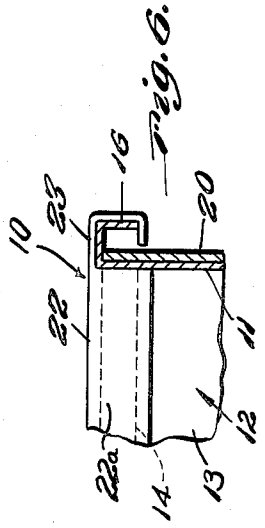


Fig. 3.

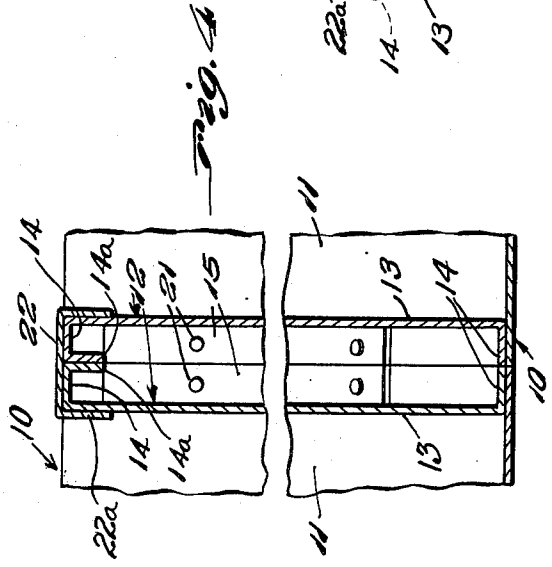


Fig. 2.

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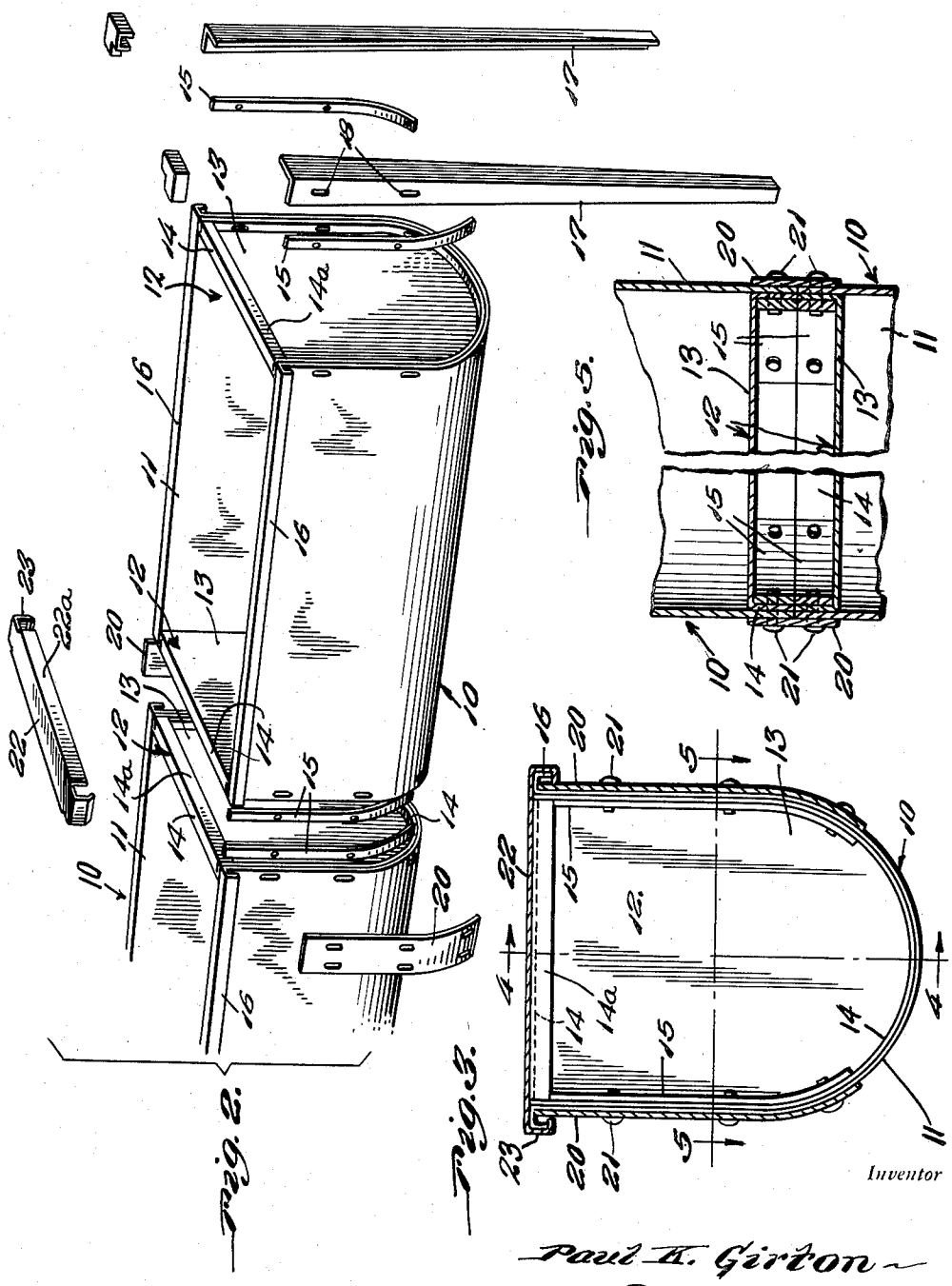


Fig. 2.



Fig. 3.



Fig. 5.

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## KNOCKDOWN WASH TANK ASSEMBLY

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4 Claims. (Cl. 220—5)

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The present invention relates to a novel and improved wash tank construction, the same having particular reference to a single tank unit as well as a plurality of interconnected tank units, the latter when combined, serving to provide what is believed to be a novel knockdown multiple wash tank assembly.

An object and purpose of the invention is to provide wash tanks of standard sizes which can be shipped in disassembled knocked down form, the legs being separate and readily attachable, in order to take advantage of low freight rates and advantages attainable from subsequent easy assembling of the tanks into various sizes and numbers in a dairy or wherever the final complete assembly may best be utilized.

An equally important object of the invention has to do with the adoption and use of relatively small standardized tank units, said units being so constructed as to enable same to be placed in end-to-end longitudinal alignment, this for purposes of building up an assembly made up of either two, three or more tanks.

More specifically, novelty has to do with an arrangement of added tank units, these arranged in end-to-end separable relationship and the endmost units being supported by detachable legs, said legs being adjustably mounted in order to obtain the desired level in relation to the floor or other support.

In addition, novelty is predicated upon an economically and easily shippable ready-to-erect dairy tank assemblage wherein, the attached and abutting ends of the respective tank units are so arranged and connected together as to promote sanitation and to thus conform to the needs of the dairymen.

A further object has to do with the provision of a simple and economical tank unit whose body is fashioned from galvanized steel, this being bent into channel form, there being marginally flanged end or head plates fitted into the ends of said channel and being reinforced by interior cleats and exterior straps corresponding in shape to both the body and end plates.

Then, too, novelty is predicated on the stated end or head plates whose upper horizontal flanges are provided with depending auxiliary flanges serving as lip abutments, the latter, when coacting tank units are properly paired, coming into firm abutting contact with each other and providing a firm foundation for channel-shaped capping shields which are brought into play to effectively seal and join the complemental parts together.

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Other objects, features and advantages will become more readily apparent from the following description and the accompanying illustrative drawing.

In the drawings, wherein like numerals are employed to designate like parts throughout the views:

Figure 1 is a perspective view of a triple unit or multiple tank assembly constructed in accordance with the principles of the instant invention.

Figure 2 is an enlarged perspective view based on Figure 1 and showing the respective tank units, legs and other parts detached and separated to bring out their respective constructions and relationships.

Figure 3 is a view on the line 3—3 of Figure 1, this to bring out the marginally flanged insert or end plate and the reinforcing elements associated therewith.

Figure 4 is a vertical section taken on the plane of the line 4—4 of Figure 3, this looking in the direction of the arrows.

Figure 5 is a horizontal section, this taken on the plane of the line 5—5 of Figure 3, looking downwardly in the direction of the arrows.

Figure 6 is an enlarged or exaggerated fragmentary elevational and sectional view taken approximately on the plane of the line 6—6 of Figure 1.

As the preceding description has implied, novelty is predicated upon (1) the construction of individual tank units with or without detachable legs (2) the idea of building up and employing the so-called Add-A-Tank principle and (3) the construction of the details and parts which go to provide the facilities for ready erection, closing the tanks and preventing the accumulation of dirt and dust, thus rendering the final assembly substantially complete and sanitary.

It is perhaps advisable to start by explaining that the tank units are each the same in construction and for that reason standardized and are denoted by the numerals 10. Each tank unit is fashioned from galvanized steel, the plate, as such, being denoted by the numeral 11. This plate, which is rectangular, is bent between its ends to form a substantially channel-shaped trough or tank body. Fitted vertically into the ends are dished end plates or so-called heads 12. Each head is in the form of a shallow pan 13 (see Figure 2) which corresponds in shape to the body plate 11. Said end plate 13 has a marginal surrounding flange 14 and thus when

we look at the plate as a unit it appears as though it were a pan as shown, for instance, in Figures 4 and 5. In any event, said end plate fits into the ends of the trough or body and it is welded into place, and by preference, I provide a reinforcing cleats or strips 15 which fit against the plate 13 and which also fits against the vertical portions only of marginal flange 14 of said plate to satisfactorily reinforce the parts as brought out to advantage in Figures 4 and 5. The upper longitudinal edges of the plates 11 are bent out and down to form reinforcing rims 16 as shown.

Reference being had to Figure 4, it will be seen that the so-called pan-shaped end plates 12 have marginal flanges 14 entirely around their perimeter edge portions and said flanges are laterally disposed and outwardly directed in respect to the end portions of the trough. The top flanges 14 are provided with downturned auxiliary flanges 14a which constitute abutment lips which abut one another when assembled as shown in Figure 4. Also as seen here, it will be noticed that the channel-shaped clips and shields to be hereinafter described are of suitably conforming construction.

The supporting legs, which are in the form of angle irons, are denoted by the numerals 17 and have their upper ends slotted as at 18, said slotted ends being secured by fastenings 19 (see Figure 1) to the outer ends of the endmost tank units as shown. These legs are suitably capped, detachable and adjustable to achieve the aforementioned aims.

To accomplish the "add-a-tank" idea the respective tanks 10 are arranged in end-to-end abutting relationship and in a plane with each other and they are fastened together by side straps 20. These straps extend from the upper open sides of the tank down to approximately the rounded bottom portions but do not extend completely beneath the bottoms of the respective tanks. In other words, the straps 20 are of the approximate length brought out in Figures 1 and 2. These straps bridging the abutting ends of the tanks are secured in place by rivets or the like 21 and constitute the principal tank unit connecting and assembling members.

The numerals 22 designate cap-like shields. These are adapted to fit over the abutting upper edge portions of the respective tank units 10. These shields are channel-shaped in cross section as seen in Figure 6 and they fit tightly over the flanged end plates 12. The outstanding hooks 23 at opposite ends project and are clenched in place about the rims 16 as shown in Figure 6.

It will be noted particularly that the channel-shaped shields 22 are sufficient in cross-sectional dimension to effectively and neatly cap over the top flanges 14 of the respective and coacting end plates 13. What is more, the downturned flange portions 22a fit snugly against the body portions of the end plates to provide substantially dust-proof assemblage of parts.

All that is necessary is to adopt the desired sizes of tank units, to place same in alignment and end to end relationship and to fasten them together with the straps or strips 20 and the shield-caps 22. The legs are bolted in place and that is approximately all there is to it.

I desire to stress manufacturing and delivering economies which result from this revolutionary novel idea and the low tank prices and conveniences which attend such improved ideas. There are only 3 basic size tanks—24, 30 and 36 inches. These 3 sizes can be assembled into any combination of 19 different sizes, ranging from a single-compartment 24-inch tank up to a three-compartment 108-inch tank. The tanks come "knocked down," giving a low freight rate. Assembling is a quick easy job. The dealer can assemble any size needed from a small inventory for quick delivery. The customer can add units as he needs them.

It is understood that tanks of the type herein shown and described can be used individually or collectively and wherever such types of tanks are suitable for article washing purposes. In the designing of the tank assembly and adopting the "Add-A-Tank" principle of construction and use this was done primarily with the thought in mind of providing wash tanks for use in modern dairies. However, there are equally as many uses for tanks of this sort on farms and therefore I do not desire to confine myself at this stage.

A careful consideration of the foregoing description in conjunction with the invention as illustrated in the drawings will enable the reader to obtain a clear understanding and impression of the alleged features of merit and novelty sufficient to clarify the construction of the invention as hereinafter claimed.

Minor changes in shape, size, materials and rearrangement of parts may be resorted in actual practice so long as no departure is made from the invention as claimed.

I claim:

1. A tank unit adapted to be incorporated in a knockdown assemblage of the class illustrated and described comprising a trough-shaped body open at least at one end, a dished end plate fitted into and closing said one end, said end plate having horizontal top and bottom flanges and adjoining vertical flanges, said top flange having a downturned apron flange in spaced parallelism in respect to the body portion of the plate, flush with the adjacent end of said tank and constituting an abutment lip, and vertical reinforcing cleats located in the dished portion of said plate, and superimposed against the vertical flanges of said plate and fastened to said vertical flanges.

2. In a knockdown ready-to-erect wash tank assemblage of the class shown and described, a plurality of tank units, said units being disposed in end-to-end abutting relation and in a plane corresponding to one another, detachable supporting legs adjustably mounted on the endmost tank units, vertical jointing straps exteriorly located and adjustably fastened to adjacent abutting ends of the respective tank units, said straps being on opposite sides of said tank units, being of appreciable widths, bridging and extending beyond the complemental abutting ends of the coacting tank units and the fastenings therefor being respectively situated on opposite sides of said abutting ends to equalize and distribute the stresses and strains, and transverse, horizontally disposed capping shields hooding over adjacent top edge portions of the abutting ends of the respective tank units, such shields being channel-shaped in cross section and covering and sealing the space between the abutting ends to prevent entrance and accumulation of dirt and extraneous matter and to render the complete assemblage dust-proof, dirt-proof and sanitary.

3. In a knockdown ready-to-erect wash tank assemblage of the class shown and described, in combination, a pair of horizontally aligned

trough-shaped tanks, contiguous ends of said tanks being provided with opposed parallel dished end-plates said end-plates having marginal flanges, the latter directed outwardly in respect to the coacting tank-ends and extending entirely around the perimeter edge portions of said end-plates, the flanges at the top portions of said end-plates having vertically depending abutment lips and the respective lips being lined up and in abutting contact with each other, and a horizontal channel-shaped shield fitted and capping over the top edge portions of said end-plates and enclosing and covering the underlying flanges and having depending flanges mating with and contacting the inward surfaces of the body portions of said end-plates, said shield being provided at opposite outer ends with hooks clenched down over exterior side walls of the coacting tank-ends.

4. The structure specified in claim 3 in conjunction with reinforcing cleats paired and attached to the complemental vertical marginal flanges of the respective end-plates, and exteriorly disposed vertical finishing, reinforcing and



dustproofing straps fitted against opposite vertical side walls of the tank and bridging the space between the tank-ends, said straps being adjustably and detachably fastened in place.

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